

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Application of:

Bosworth, et al.

Application No.: 10/089,139

Filed: August 19, 2002

Confirmation No.: 2275

For: A MULTI-LANGUAGE
EXECUTION METHOD

Examiner: Rampuria, Satish

Group Art Unit: 2191

Customer No.: 25,943

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PRE-APPEAL BRIEF REQUEST FOR REVIEWIntroductory Comments

In the Final Office Action mailed March 22, 2007, all pending claims of the above-captioned application were rejected. Applicants hereby appeal this decision of the Examiner to the Board of Patent Appeals and Interferences according to 35 U.S.C. § 134 and submit a Notice of Appeal in compliance with 37 C.F.R. § 41.31 contemporaneously with the present request. Prior to the filing of the Appeal Brief, Applicants respectfully request review of the legal and factual basis of the rejections in the above-captioned application in light of the remarks to follow.

Status of Claims

Claims 1-13 and 20-32 are pending and stand rejected. Claims 20-32 are rejected under 35 U.S.C. §112, second paragraph, claims 1-3, 6-7, 20-22, 25-26 are rejected under 35 U.S.C. §102(e), and claims 4-5, 8-12, 23-24, and 27-32 are rejected under rejected under 35 U.S.C. §112, second paragraph, claims 1-3, 6-7, 20-22, 25-26 are rejected under 35 U.S.C. §103(a).

Claim Rejections under – 35 U.S.C. § 112, Second Paragraph

In “Claim Rejections – 35 USC § 112,” item 9 on page 8 of the above-identified final Office Action, claims 20-32 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph. Applicants respectfully disagree for the following reasons.

No specific reasons are provided for the rejection of claims 20-32 under §112, second paragraph. The only specific reason given is only mentioned in regard to claims 14-19 and 33-38, which were cancelled in Applicant’s Response to the Final Office Action, mailed April 25, 2007. Accordingly, without knowing any sort of specific reason, and upon Applicants’ own further review of the claims, Applicants maintain that claims 20-32 are not indefinite under §112, second paragraph.

Claim Rejections under – 35 U.S.C. § 102(b)

In “Claim Rejections – 35 USC § 102,” item 12 on page 8 of the above-identified final Office Action, claims 1-3, 6-7, 20-22, and 25-26 have been rejected as being fully anticipated by U.S. Patent No. 6,292,936 to *Wang* (hereinafter “Wang”) under 35 U.S.C. §102 (e). Applicants respectfully disagree for the following reasons.

Claim 1 calls for a “method of computing comprising:
reading, by an execution engine, a data processing representation having code sections
with code statements of at least a first and a second programming language;
recognizing, by the execution engine, a first code section with at least code statements of
a first programming language;
invoking, by the execution engine, a first code statement processing unit of the first
programming language to process the first code section;
recognizing, by the execution engine, a second code section with at least code statements
of a second programming language; and

invoking, by the execution engine, a second code statement processing unit of the second programming language to process the second code section.”

In contrast, Wang fails to disclose, expressly or inherently, an execution engine that invokes **first and second** code statement processing units of first and second programming languages, as is claimed in amended claim 1. Wang merely teaches “an interpreter-based scripting environment [that] includes multiple runtime processors executed by the computer. Each of the runtime processors processes their respective corresponding intermediate sources derived from an original source in a synchronous manner” (abstract). The processors are interdependently invoked. Specifically, the original source disclosed in Wang comprises an HTML document with embedded Visual Basic scripting language blocks. Wang teaches a single HTML parser that parses the original HTML + VB source, and translates the non-VB source into a first intermediate source executable by a Java VM, and the VB source into a second intermediate source having the VB script statements executable by a VB script interpreter.

Even if we were to read the Java VM and VB Script Interpreter as the recited first and second code statement processing units, Wang does not disclose an execution engine that invokes **both** of the Java VM **and** VB Script Interpreter. The HTML parser of Wang, described above, simply creates intermediate sources and does not invoke either of the Java VM or the VB Script Interpreter. According to Wang, col. 3, lines 57-67 and col. 4, lines 1-8, the Java VM is invoked first at runtime, and the VB Script Interpreter is later invoked by the Java VM. Thus, there is no common execution engine that invokes both the Java VM and the VB Script Interpreter and, therefore, Wang does not disclose the execution engine recited by claim 1.

Both Wang and the invention of claim 1 certainly teach methods of processing multi-language specifications. But Wang teaches an alternative solution to that proposed by the claimed invention of claim 1. In Wang, no common execution engine controls the “hand off” of execution between the code processing units. Thus, Wang inserts synchronizer tokens into the intermediate code to eliminate the need for a common execution engine. In contrast, the claimed invention of claim 1 does teach such a common “execution engine” that controls the invoking of both code processing units. Thus, in the claimed invention of claim 1, no synchronizer tokens are needed. Accordingly, for the reasons given above, Wang does not anticipate claim 1 and, because Wang proposes an alternative solution teaching away from that of claim 1, Wang does not even suggest claim 1.

In the Advisory Action mailed May 14, 2007, the Examiner asserts that Applicants' argument relies on features which are not recited in the rejected claims. More specifically, the Examiner states that Applicants' argument relies on a "common process", and that no common process is recited in the claims. As can be seen above, Applicants' argument relies on a "common execution engine" that invokes the first and second code statement processing units. While "common" is not explicitly recited in the rejected claims, "execution engine" is, and that execution engine is inherently a "common execution engine." In interpreting the language of claim 1 above in light of the antecedent basis rule, the Examiner is required to treat "the execution engine", which is recited as invoking both the first and second processing units, as the same execution engine. This is what Applicants mean when Applicants argue that claim 1 teaches that the first and second code statement processing units are invoked by a common execution engine. Accordingly, Applicants' above arguments stand unrefuted.

Accordingly, amended claim 1 is patentable over Wang under §102(e).

Claim 20 is claim 1 in apparatus form, and thus recites similar limitations. Accordingly, claim 20 is also patentable over Wang for at least the above reasons.

Claims 2-3, 6-7, 22, and 25-26 depend from claims 1 and 20, respectively, incorporating their limitations. Thus, for at least the same reasons, claims 2-3, 6-7, 22, and 25-26 are patentable over Wang.

Claim Rejections under – 35 U.S.C. § 103(a)

1. In "Claim Rejections – 35 USC § 103," item 14 on page 12 of the above-identified final Office Action, claims 4, 5, 8, 23, 24 and 27 have been rejected as being obvious over Wang in view of U.S. Patent No. 6,732,330 to *Claussen* (hereinafter "Claussen") under 35 U.S.C. §103(a). Applicants respectfully disagree for the following reasons.

Claussen fails to cure the above discussed deficiencies of Wang. Therefore, claims 1 and 20 remain patentable over Wang even when combined with Claussen.

Claims 4, 5, 8, 23, 24, and 27 depend from claims 1 and 20, respectively, incorporating their limitations. Thus, for at least the same reasons, claims 4, 5, 8, 23, 24, and 27 are patentable over Wang and Claussen, alone or in combination.

2. In “Claim Rejections – 35 USC § 103,” item 15 on page 14 of the above-identified Office Action, claims 9-19 and 28-32 have been rejected as being obvious over Wang in view of U.S. Patent No. 5,428,792 to *Conner et al.* (hereinafter “Conner”) under 35 U.S.C. § 103 (a). Applicants respectfully disagree for the following reasons.

Conner fails to cure the above discussed deficiencies of Wang. Therefore, claims 1 and 20 remain patentable over Wang even when combined with Conner.

Claims 9-13 and 28-32 depend from claims 1 and 20, incorporating their limitations respectively. Thus, for at least the same reasons, claims 9-13 and 28-32 are patentable over Wang and Conner, alone or in combination.

Conclusion

In view of the foregoing, Applicants submit that claims 1-13 and 20-32 are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested

If any fees are due in connection with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C., No. 50-0393.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

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